# How to Excel with CUFS

Part 3

**Course Manual** 





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## 1. Financial Information

#### 1.1 Data vs. Information

There is a difference between these two terms, although often they are used interchangeably.

- **Data:** these are the facts, events, transactions that are inputted into a system e.g. originating from the suppliers invoice, payroll system, cash receipt etc.
- Information: This is data that has been processed in some way so that it is more meaningful to the end user, e.g. sorted, classified, formatted and enhanced.

#### The Importance of Financial Information

Insufficient or inadequate financial management information may lead to:

- Poor decisions being made
- No corrective action being taken

#### 1.2 Attributes of Quality Information

Quality information should 'add value' when it is used, therefore you should be asking:



Who will be using the information? Why do they want it? When do they need it by? What format do they require?

Once you have these answers you can then ensure that the information you produce contains all the right attributes.

The table overleaf lists them:

| Relevant for the purpose                          | Think about the issue being considered and what the information is to be used for e.g. is it to predict, to analyse, to summarise or to influence decisions.   |
|---|--|
| Completeness                                      | Remove any irrelevant data.<br>All the information required for the decision making<br>should be provided – it may be that well prepared,<br>accurate - but incomplete information is worthless  |
| Volume  | The detail and volume of the information should be<br>consistent with the needs of the user:<br>~Focus clearly on the issue<br>~Highlight the main points/ provide a summary<br>~Don't cloud the issue with surplus data   |
| Accurate for the purpose                          | How exact do the values need to be?<br>~to the nearest penny, e.g. for a VAT invoice<br>~to the nearest pound e.g. for an aged debtors list<br>~to the nearest thousand pounds e.g. forecasting<br>expenditure over the year   |
| Reputable source                                  | Users must have confidence in the source of the<br>information e.g.<br>~ it has been reliable in the past.<br>~ it is free from error or bias<br>~ it can be reconciled with CUFS!   |
| Timely  | Information should be issued within deadlines to<br>allow for the user to consider or take any necessary<br>corrective action e.g.<br>~before year-end,<br>~before a grant closes,<br>~before last date for deposit movements<br>~in advance of a meeting to discuss               |
| Communicated through the most appropriate channel | Think about the nature of the information (is it<br>sensitive or complex), what is it's purpose, the<br>requirements of the user and the speed it is required<br>and then select the appropriate delivery method, e.g.<br>~hard copy report,<br>~e-mail,<br>~a meeting to discuss. |
| Communicated to the right person                  | Information should be communicated to the right<br>person e.g.<br>~is a manager only responsible for one discreet<br>area?<br>~is it to be forwarded to others?  |
| Understandable                                    | Choose the style and language appropriate to the level and skill of the user.  |
| Cost effective                                    | Remember the costs of providing the information should not outweigh the value added.   |

## 2. Pivot Tables

#### 2.1 What are they?

Pivot tables are interactive tables in Excel that can quickly summarise or cross-tabulate large amounts of data.

They allow you to:

- rotate rows and columns to see different layouts of the source data
- filter data and display with subtotals and show on different pages
- expand the pivot table to see details of one or more items
- drill down to create separate detailed data extracts
- create charts based on the data with a single click of the mouse

Pivot tables also allow you to specify how you would like the data summarised by using functions such as 'count', 'sum' and 'average'. Subtotals and grand totals can be included automatically or you can define your own.

#### You can create a pivot table from:

- A Microsoft Excel list or database
- Multiple Excel worksheets
- An external database
- Another pivot table

#### Scenario:

In Excel, analyse departmental expenditure on source of funds AAAA (Chest Nonpayroll) by exporting a standard report and creating a pivot table from the data.

#### Method:

#### Stage 1

- a) Run the Transaction Code Balance Report Exportable
- b) Save as a Text file and open up in Word to remove page breaks
- c) Import into Excel and save

#### Stage 2

- d) Create a look up table that provides descriptions for the first two letters of the transaction codes starting with E and F
- e) Insert three extra columns into the data spreadsheet and strip out the transaction code details
- f) Using the left function extract the first two characters of the transaction code and look up their description

#### Stage 3

- g) Select the whole sheet and go to Pivot Reports
- h) Create a pivot report where page = cost centre, rows = category description and data = sum of period activity

#### 2.2 How to create Pivot Tables

a) In Excel, highlight the data that you want to display in a Pivot table (Note: Ensure all the columns in your data source have headings)

| 🖳 Eile 🛛        | dit <u>V</u> iew | Insert         | F <u>o</u> rmat  | <u>T</u> ools | Data       | Window                | Help                                       |          |               |                  |       |
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|                 |                  |                | N 1 00           |               |            | Filter                |  | •        |               |                  |       |
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| F1437           | •                | f <sub>×</sub> | =LEFT(E          | 1437 (2)      |            | -                     |  |          |               |                  |       |
|                 | F                |                |                  |               |            | Su <u>b</u> totals    |  |          |               | <u> </u>         | J     |
| 37 NA           |                  |                | Endown           |               |            | Validation            |  |          |               | -122.67          |       |
| 38 SA           |                  |                | Balance          |               |            | Table                 |  |          | ng Account    | 326.28           |       |
| 39 XE           |                  |                | Balance          |               |            | _                     |  |          |               | 0                |       |
| 40 XH           |                  |                | Balance          |               |            | T <u>e</u> xt to Colu | umns                                       |          | eserve        | -326.28          |       |
| 41 EH           |                  |                | Consum           |               |            | Consolidate           |  |          |               | 157.45           |       |
| 42 EL           |                  |                | Consum           |               |            | Group and (           |  |          | umables a     | 20.19            |       |
| 43 EM           |                  |                | Consum           |               |            | Group and G           | Jutiine                                    | <u> </u> |               | 1,416.21         |       |
| 44 EM           |                  |                | Consum           |               | 17         | PivotTable a          | and PivotChart Report                      |          | ems           | 522.42           |       |
| 45 EM           |                  |                | Consum           |               |            | Import Exte           | rnal Data                                  | •        | es            | 408.11           |       |
| 46 EM           |                  |                | Consum           |               |            |                       |  |          |               | 155.1            |       |
| 47 EM           |                  |                | Consum           |               |            | List                  |  | •        | AND COMPONEN  | 31.35            |       |
| 48 EM           |                  |                | Consum           |               |            | XML                   |  | •        |               | 34.31            |       |
| 49 EM           |                  |                | Consum           |               |            | Refresh Dal           |  |          |               | 45               |       |
| 50 EM           |                  |                | Consum           |               |            | -                     |  |          | DOR FURNITURE | 59.97            |       |
| 51 EM           |                  |                | Consum           |               |            |                       | Adhesives                                  |          |               | 360.49           |       |
| 52 EQ           |                  |                | Consum           |               |            |                       | Telephones, land an                        |          |               | 671.67           |       |
| 53 EQ           |                  |                | Consum           |               |            |                       | Extension Line rent                        |          | tual fro      | 50.98            |       |
| 54 EQ           |                  |                | Consum           |               |            |                       | Telephone Call Char                        |          | - 4 D         | 1,546.77         |       |
| 55 EQ           |                  |                | Consum           |               |            |                       | Private Calls refunde                      | ed (a    | ctual)        | 465.58           |       |
| 56 EU           |                  |                | Consum           |               |            |                       | Fire Extinguishers                         | C        |               | 528.42           |       |
| 57 EU<br>58 EU  |                  |                | Consum           |               |            |                       | Fire Protection/Fire                       |          |               | 476.98           |       |
| 58 EU<br>59 EU  |                  |                | Consum           |               |            |                       | General Security Ed<br>Installation amd Ma |          |               | 418.26           |       |
| 59 EU<br>60 EU  |                  |                | Consum           |               |            |                       | SECURITY SERVIC                            |          | lance of      | 191.33<br>376.01 |       |
| 60 EU<br>61 EU  |                  |                | Consum           |               |            |                       |  |          | ing Tanaa     | 376.01           |       |
| 61 EU<br>62 EW  |                  |                | Consum<br>Consum |               |            |                       | Signs, Labels and V                        |          | ing rapes     | 46.18            |       |
| 62 EVV<br>63 EW |                  |                | Consum           |               |            |                       | Aggregate,Sand, Gr<br>BUILDING MATERIA     |          |               | 46.18            |       |
| 64 EVV          |                  |                | Consum           |               |            |                       | GAS  | NLO      |               | 3,782.53         |       |
|                 |                  |                | Consum           |               |            |                       | DI ANT MAINTENAI                           |          |               | CC.207,C         |       |

b) Select *Data* -> *Pivot Table and Pivot Chart Report* from the menu:

- c) Follow the Pivot table wizard:
- **In Step 1**: select the data source and select a Pivot table (these are the default settings in step 1 of the wizard)



# In Step 2: Make sure the range includes all of the rows and columns you wish to use for the pivot table. Click Next



In Step 3:

Click on Layout and decide which fields from the spreadsheet you would like to be displayed (this can always be changed later).

| PivotTable and PivotChart Wizard - Step 3 of 3   | <u>? ×</u> |
|--|------------|
| Where do you want to put the PivotTable report?<br>© New worksheet<br>© Existing worksheet<br>Click Finish to create your PivotTable report. |            |
|  | nish       |

#### In the layout screen:

Click and drag the row/column information from the selection available on the right hand side.



If when you transfer over a value field (in this case "Period Activity") and it is displayed as a 'count of ...' double click on the transferred field to change the

mathematical function of the field. The following box will be displayed, and you can choose whether you want your information counted, or, for example, summed.

| PivotTable Field   | ×              | If you then click on 'OK' you will  |
|--|----------------|---|
| Source field: Period Activity Name: Sum of Period Activity Summarize by: | OK<br>Cancel   | return to the Layout box. Once you<br>are satisfied with your Layout,<br>clicking on 'OK' will return you to<br>step 3. |
| Sum<br>Count<br>Average<br>Max<br>Min<br>Product<br>Count Nums           | Hide<br>Number | This button allows you to format the cells, e.g. add £ signs, decimal places etc.                                       |

If you wish, you can then click into 'Options' to amend details such as whether subtotals and grand totals will be displayed.

| PivotTable and PivotChart Wizard - Step   | 3 of 3 ? 🗙   |
|---|--|
|   | u want to put the PivotTable report?<br>ew worksheet<br>cisting worksheet<br>create your PivotTable report.<br>Cancel < Back Next > Einish |
| PivotTable Options           Name:         PivotTable1           Format options | X  |
| Grand totals for columns  | Page layout: Down, Then Over   |
| Grand totals for rows   |  |
| AutoFormat table  | Eields per column: 0 🚔   |
| Subtotal hidden page items  Merge labels  | For error values, show:  |
| Preserve formatting   | For empty cells, show:   |
| Repeat item labels on each printed page   | 🗖 Set print titles   |
| Mark Totals with *  |  |
| Data options  |  |
| Data source options:  | External data options:   |
| 🔽 Save data with table layout   | ☐ Save password  |
| Enable drill to details   | Background query   |
| Refresh on open   | C Optimize memory  |
| 🔽 Refresh every 🛛 60 🚊 minu   | tes  |
|   | OK Cancel  |

Again, once you click on OK you will be returned to Step 3 of the Pivot Table Wizard.

#### Click on Finish.

Your Pivot Table will be displayed and you can then amend the displayed data as you wish.

| Kicrosoft Excel - 4 Transaction Code Balances NA with loo    | oked up values           |       |
|--|--------------------------|-------|
| 🗐 Eile Edit View Insert Format Tools Data Windo              | ow <u>H</u> elp          |       |
| Ε. 🚔 🛃 👌 🗐 🛃 🛍 🛍 - 🔊 - 🧶 Σ.                                  | - 2↓   🛄 🕝 🚆 Arial       |       |
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|  | PivotTa                  |       |
| A3 🔻 🍂   | Directe                  |       |
| A  | BC                       |       |
| 1 Cost Centre code   | (All)                    |       |
| 2  | (750)                    |       |
| 3 Sum of Period Activity                                     |                          |       |
| 4 Trans Category Description                                 | Total                    |       |
| 5 Agricultural, Fisheries, forestry, Horiticultural Supplies |                          |       |
| 6 Audio Visual and Multimedia                                | 1042.55                  |       |
| 7 Catering supplies and Services                             | 8590.66 VVNEN YO         |       |
| 8 Cleaning materials and Equipment, Janitorial Supplies      | s 18617.6 Cursor is      | in th |
| 9 Computing Supplies   | 41103 70                 | the   |
| 10 Credit Card control account                               | 3522.14 region of        |       |
| 11 Estates and Buildings                                     | 18859.4 table the        | 'Fie  |
| 12 Furniture, Furnishings and Textiles                       | 14369.98                 |       |
| 13 Laboratory and Animal House Supplies and Services         | 24.00.01                 | 10 00 |
| 14 Library and publications                                  | 156808.27 <b>POPS UP</b> |       |
| 15 Miscellaneous/ PivotTable Field List 🔹 🗙                  | -32909.55 automatic      | cally |
| 16 Printing Drag items to the PivotTable report              |                          |       |
| 17 Professional an   | 5375.03 You can          | eith  |
| 18 Safety and Sec  | 30434.06 close it d      | owr   |
| 19 Stationery and Source of Funds Descript                   | 55565.14                 |       |
| 20 Telecommunica   | 61758.81 or just dra     | ag r  |
| 21 Telecoms - Por  | 20137.39 to one sid      | de c  |
|  | -047.40                  |       |
| 23 Travel and Tran: Cost Centre description ence             |                          | у.    |
| 24 Vehicles (Purch   | 14159.02                 |       |
| 25 Workshop and Trans Category Desci state                   |                          |       |
| 26 #N/A Transaction code                                     | -9034.65                 |       |
| 27 (blank)   | 0.414.00.75              |       |
| 28 Grand Total Period Activity                               | 641122.75                |       |
|  |                          |       |
| 31   |                          |       |
| 32 Add To Row Area   |                          |       |
|  |                          |       |
| ,                      |                          |       |
| Ready  |                          |       |

е d Jt

In this example, Transaction category balances are shown in a simple table. Note, this pivot table has the Cost Centre code as a Page item (cell A1) – the Cost Centre selection can be changed to show one, all or a selection of costs centres. The totals for each transaction code will then update according to the selections made.

It is quite easy to change the table so the cost centre totals for each transaction category are displayed in columns. Simply drag the shaded Cost Centre code box down into the table (just above the Total cell)

2.3



#### 2.4 Changing the level of detail displayed

If you double click on either a row or column field e.g. "Agricultural...." an additional Show Detail window will appear and allow you to add more details to your report. Alternatively you can use the "show" and "hide details" buttons on the pivot table tool bar.



| 1  | A5 🔹 🏂 Agricultural, Fisheries, forestry, Horiticult   | urai |                                      |             |       |
|----|--|------|--------------------------------------|-------------|-------|
| 1  | A  |      | B                                    | С           | D     |
|    | Cost Centre code   |      | (All) 🔻                              |             |       |
| 2  | Print of Devied Activity   |      |                                      |             | -     |
|    | Sum of Period Activity   | 1000 | Total                                |             | -     |
|    | Trans Category Description<br>Agricultural, Fisheries, forestry, Horiticultural Supplies and Service | -    | 74.88                                |             |       |
|    | Agricultural, Fisheries, forestry, Honticultural Supplies and Service<br>Audio Visual and Multimedia | 35   | 0 74.00                              |             |       |
|    | Catering supplies and Services   | She  | ow Detail                            |             | ×     |
|    | Cleaning materials and Equipment, Janitorial Supplies  | Ch   | oose the field cor                   | taining the | -     |
|    | Computing Supplies   |      | tail you want to s                   |             | -     |
|    | Credit Card control account  | 5    | ource of funds co                    | te          |       |
|    | Estates and Buildings  | So   | ource of Funds De                    |             |       |
|    | Furniture, Furnishings and Textiles  |      | ost Centre code<br>ab num            |             |       |
|    | Laboratory and Animal House Supplies and Services  |      | ost Centre descrit                   | ntion       |       |
|    | Library and publications   | Tr   | ansaction catego                     |             |       |
|    | Miscellaneous/unclassified   |      | ansaction code<br>ansaction Descrip  |             |       |
| 16 | Printing   |      | ransaction Descrip<br>eriod Activity | CION        | -     |
| 17 | Professional and Bought in Services  |      |                                      |             |       |
| 18 | Safety and Security  |      | OK                                   | Ca          | ancel |
| 19 | Stationery and Office Supplies   |      |                                      |             | -     |
| 20 | Telecommunications and Postage   |      | 61758.81                             |             |       |
| 21 | Telecoms - Port related Charges  |      | 20137.39                             |             |       |
|    | Transfer of Expenditure  |      | -647.46                              |             |       |
|    | Travel and Transport (inc Vehicle hire and subsistence)  |      | 34861.7                              |             |       |
|    | Vehicles (Purchase, Lease, Contract Hire)  |      | 14159.02                             |             | 1     |
| 25 | Workehon and Maintananca Sunnliae (Lah and Fetatae)  |      | L 61947 64                           |             |       |

| 📴 🛍 🕍 🖉 🏷 | 🕉 🧤 🕼 🖓 🖓 Reply with Changes... End Review... 🍃

In the example below the 'Transaction Description' has been added

Now if you double click on any individual transaction category description you see its related transaction descriptions

|    |  | PivotTable 🕶   🚈 🛄   📲 📲   🥊       | 1 📪 📑 🛛 💁 |
|----|--|------------------------------------|-----------|
|    | A14 🕶 🏂  |                                    |           |
|    | A  | В                                  | C         |
| 1  | Cost Centre code   | (All)                              | $\square$ |
| 2  |  |                                    | l. I.     |
| 3  | Sum of Period Activity   |                                    |           |
| 4  | Trans Category Description   | ➡ Transaction Description          | Total     |
| 5  | Agricultural, Fisheries, forestry, Horiticultural Supplies and Service | s Agricultural/Fisheries/Forestry/ | 22.92     |
| 6  |  | PURCHASE OF PLANTS, CROPS, TREES   | 51.96     |
| 7  | Agricultural, Fisheries, forestry, Horiticultural Supplies and Service | s Total                            | 74.88     |
| 8  | Audio Visual and Multimedia  | AUDIO EQUIPMENT                    | 31.68     |
| 9  |  | AUDIO VISUAL CONSUMABLES           | 42.53     |
| 10 |  | Cameras (film)                     | 379       |
| 1  |  | Display Boards                     | 53.11     |
| 12 |  | Display Projectors                 | 536.39    |
| 13 |  | Film processing                    | 218.19    |
| 14 |  | Lighting & accessories             | 22.88     |
| 15 |  | OTHER/GENERAL AUDIO-VISUAL AID     | 40.5      |
| 16 |  | PHOTOGRAPHIC EQUIPMENT & SZRVICE   | 425       |
| 17 |  | Televisions & Monitors             | 174.84    |
| 18 |  | Video Camera                       | 19.43     |
| 19 | Audio Visual and Multimedia Total                                      |                                    | 1943.55   |
| 20 | Catering supplies and Services   |                                    | 8590.66   |
| 21 | Cleaning materials and Equipment, Janitorial Supplies                  |                                    | 18617.6   |
| 22 | Computing Supplies   |                                    | 41183.78  |
| 23 | Credit Card control account  |                                    | 3522.14   |

If you double click on one of the values, Excel will provide you with a breakdown on a new sheet of the component entries from your original spreadsheet.

| M            | icrosoft E        | ксel - 4  | Transac  | tion Code       | Balanc        | es NA w      | ith looke      | l up value:    | 5                    |             |           |                |           |       |                 |            | _ 8 ×    |
|--------------|-------------------|-----------|----------|-----------------|---------------|--------------|----------------|----------------|----------------------|-------------|-----------|----------------|-----------|-------|-----------------|------------|----------|
| :8           | <u>File E</u> dit | ⊻iew      | Insert   | F <u>o</u> rmat | <u>T</u> ools | <u>D</u> ata | <u>W</u> indow | Help           |                      |             |           |                |           | Тур   | e a question fo | r help 🛛 👻 | _ 8 ×    |
| 8            | 💕 🛃 I             | ا 🔒 🕹     | 31       | L 🗈 🖻           | -   K)        | ) -   🧕      | Σ - Δ          | l   🛄 🔞        | ) 📜 A                | rial        | - 1       | 0 • <b>B</b> I | 」≣≣       | = 🔤 🕎 | % ,             | - 🗞 - 🖌    | <u>-</u> |
| 10-          |                   |           |          |                 |               |              |                |                | E <u>n</u> d Review. |             |           |                |           |       |                 |            |          |
| • 🛥          | A1                | -         |          | Source o        |               |              | copi, mari     | Enerige Strift |                      |             |           |                |           |       |                 |            |          |
|              |                   | A         | /*       | oodice o        | F             |              |                |                | 0                    | D           |           | E              |           | F     |                 |            | -        |
| 1            | Source            |           | s code   | Source          |               |              | cription       |                |                      |             | Cost Cent | re description | Transacti |       |                 | Т          | rans (   |
|              | АААА              |           |          | CHEST N         |               |              |                | NMJB           |                      | (4014)      |           | ECORATIONS     | EE        |       | Agricultural,   | Fisheries  | s, fores |
|              | АААА              |           |          | CHEST N         |               |              |                | NMEW           |                      | (4034)      |           | UMABLES, S     |           |       | Agricultural,   |            |          |
|              | АААА              |           |          | CHEST N         | NON PA        | AYROL        | L              | NKDD           |                      | (4036)      | GENERAL   | DEPARTMENT     | EE        |       | Agricultural,   | Fisheries  | s, fores |
| 5            |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 6<br>7       |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 8            |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 9            |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 10           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 11           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 12           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 13<br>14     |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 14           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 16           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 17           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 18           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 19           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 20<br>21     |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 22           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 23           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 24           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 25           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 26           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 27<br>28     |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 20<br>29     |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 30           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 31           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 32           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 33           |                   |           |          |                 |               |              |                |                |                      |             |           |                |           |       |                 |            |          |
| 34<br>I4 - 4 | ► N\ SH           | ieet3 / S | 5heet4 🖌 | Sheet5 /        | Sheet6        | Sheel        | 7 / Sheet      | 2 / Trans      | action Code          | Balances NA | yt /      | •              |           |       |                 |            | ÐĹ       |
| Read         | ly                |           |          |                 |               |              |                |                |                      |             |           |                | Sur       |       |                 | NUM        |          |

Excel gathers all the lines of data that make up the total in the pivot table and displays it on a new sheet (or tab). So if you clicked on ten different totals in the pivot table, you would create ten additional sheets in the Excel work book

*Tip:* Be careful to delete any additional sheets that you no longer require – Excel workbooks containing pivot tables can double in size compared to those containing just the raw data.

## 2.5 Re-arranging the data displayed

The grey 'Field Buttons' can be used to rearrange the data. Each field summarises multiple rows of information from the original data source. By dragging a field button to another part of the table allows you to view the data in different ways.

|  |  |   |                          | Α         |  | }    | С            |          | D           | E        | F    | G    |
|--|--|---|--------------------------|-----------|--|------|--------------|----------|-------------|----------|------|------|
|  |  |   | 1                        | Sum of I  |  | -    |              |          | Cost Centre |          |      |      |
|  |  |   |                          |           |  | code | Description  |          | AGAA        | AGBA     | AGBB | AGBC |
|  |  |   | 3                        | AUDIO \   | /ISEAKA  | 1    | Photographic | Film     |             | 0        |      |      |
|  |  |   | 4                        |           | EAKA   |      |              |          |             | 0        |      |      |
| ogging th  | o cost   |   | 5.                       | AUDIO \   | /ISUAL E   | EQUI | PMENT Total  |          |             | 0        |      |      |
| ragging th   |  |   | 6                        | BOOKS     |  |      |              |          |             | 0        |      |      |
| entre field  |  |   |                          |           |  | PRO  | F SERVICES   |          |             | -9310.95 |      | 5    |
| om D1 to /   | A2 can   |   |                          | CATERI    |  |      |              |          | 55.1        | 169.47   |      |      |
| eate a diff  | ferent   |   |                          | CLEANI    |  |      |              |          |             | 0        |      |      |
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|  |  |   |                          | FURNITI   |  |      |              |          | 0           |          |      | 3    |
|  |  |   |                          |           | & SAFE   |      |              |          | 0           |          |      |      |
| -  |  |   |                          |           | VCLASS   |      |              |          | -367.32     |          |      |      |
|  |  |   |                          |           | . & TELE   | :CON | //S          |          |             | 299.66   |      |      |
|  |  |   |                          | PRINTIN   |  |      |              |          | 40.00       | 0        |      | _    |
|  |  |   |                          | STATIO    |  |      |              |          | 13.68       |          |      | )    |
|  |  |   |                          |           |  |      |              |          |             | 266.2    |      |      |
|  |  |   |                          | WORKS     | HUP  |      |              |          |             | 9.75     |      |      |
| A<br>A   | B<br>Period £  | C   | D                        |           | E  |      | F (          | 3        |             |          |      |      |
| 1 Sum of   | Period £   |   |                          |           |  |      | F (          | 9        |             |          |      |      |
| 1 Sum of   | Period £<br>ntr Cat Name<br>CATERING   | Trans code ,                                      |                          |           |  |      | F (          | 3        |             |          |      |      |
| 1 Sum of<br>2 Cost Ce<br>3 AGAA<br>4   | Period £<br>ntr Cat Name<br>CATERING<br>COMPUTE  | Trans code j<br>;<br>;R                           |                          |           | al<br>55.1<br>0  |      | F            | ()       |             |          |      |      |
| 1 Sum of<br>2 Cost Ce<br>3 AGAA<br>4<br>5  | Period £<br>International<br>CATERING<br>COMPUTE<br>FURNITUR   | Trans code)<br>;<br>;R<br>E                       |                          |           | al<br>55.1<br>0  |      | F            | 3        |             |          |      |      |
| 1 Sum of<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6   | Period £<br>Inti Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &   | Trans code)<br>R<br>E<br>SAFETY                   |                          | ption Tot | al<br>55.1<br>0<br>0   |      | F            | 6        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7  | Period £<br>Inti Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC   | Trans code<br>R<br>E<br>SAFETY<br>LASSIFIED       |                          | ption Tot | al 55.1<br>55.1<br>0<br>0<br>367.32  |      | F            | Э        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8   | Period £<br>ntt Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE  | Trans code<br>R<br>E<br>SAFETY<br>LASSIFIED       |                          | ption Tot | al<br>55.1<br>0<br>0<br>367.32<br>13.68  |      | F            | 5        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T   | Period £<br>Intl Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total  | Trans code<br>R<br>E<br>SAFETY<br>LASSIFIED<br>RY | Descrip                  | ption Tot | al 55.1<br>55.1<br>0<br>0<br>367.32  |      | F            | 6        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T   | Period £<br>Inti Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total  | Trans code<br>R<br>E<br>SAFETY<br>LASSIFIED       | Descrip                  | ption Tot | al<br>55.1<br>0<br>0<br>367.32<br>13.68<br>-298.54   |      | F (          | 3        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA  | Period £<br>Intl Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total<br>AUDIO VIS<br>BOOKS  | Trans code<br>R<br>E<br>SAFETY<br>LASSIFIED<br>RY | Descrip                  | ption Tot | al<br>55.1<br>0<br>0<br>367.32<br>13.68<br>-298.54<br>0  |      | F (          | 3        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA<br>11<br>12<br>13  | Period £<br>Intl Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total<br>AUDIO VIS<br>BOOKS<br>BROUGHT<br>CATERING   | Trans code  | Descrip                  | ption Tot | al 55.1<br>55.1<br>0<br>0<br>367.32<br>13.68<br>-298.54<br>0<br>0  |      | F (          | 3        |             |          |      |      |
| 1 Sum of<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA<br>11<br>12<br>13<br>14  | Period £<br>Inti Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total<br>AUDIO VIS<br>BOOKS<br>BROUGHT<br>CATERING<br>CLEANING   | Trans code  | Descrip                  | CES       | al<br>55.1<br>0<br>0<br>367.32<br>13.68<br>298.54<br>0<br>0<br>310.95<br>169.47<br>0   |      | F (          | 2        |             |          |      |      |
| 1 Sum of<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA<br>11<br>12<br>13<br>14<br>15  | Period £<br>Inti Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total<br>AUDIO VIS<br>BOOKS<br>BROUGHT<br>CATERING<br>CLEANING<br>COMPUTE  | Trans code  | Descrip                  | CES       | al 55.1<br>55.1<br>0<br>367.32<br>13.68<br>-298.54<br>0<br>0<br>3310.95<br>169.47<br>0<br>6683.52  |      | F (          | 6        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA<br>11<br>12<br>13<br>14<br>15<br>16  | Period £<br>Inti Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total<br>AUDIO VIS<br>BOOKS<br>BROUGHT<br>CATERING<br>CLEANING<br>COMPUTE<br>ESTATES   | Trans code  | Descrip                  | CES       | (a)<br>55.1<br>0<br>0<br>367.32<br>13.68<br>-298.54<br>0<br>0<br>3310.95<br>169.47<br>0<br>0<br>3683.52<br>0   |      | F (          |          |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA<br>11<br>12<br>13<br>14<br>15<br>16<br>17  | Period £ Inti Cat Name CATERING COMPUTE FURNITUR HEALTH & MISC/UNC STATIONE Total AUDIO VIS BOOKS BROUGHT CATERING CLEANING COMPUTE ESTATES FURNITUR   | Trans code  | Descrip                  | CES       | (a)<br>(b)<br>(c)<br>(c)<br>(c)<br>(c)<br>(c)<br>(c)<br>(c)<br>(c)<br>(c)<br>(c  |      | F (          | ĵ        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18  | Period £ Inti Cat Name CATERING COMPUTE FURNITUR HEALTH & MISC/UNC STATIONE Total AUDIO VIS BROUGHT CATERING CLEANING CCMPUTE ESTATES FURNITUR HEALTH &  | Trans code  | Descrip                  | CES       | al<br>55.1<br>0<br>0<br>367.32<br>13.68<br>298.54<br>0<br>0<br>3310.95<br>169.47<br>169.47<br>0<br>3683.52<br>0<br>0<br>0<br>0   |      | F (          | ĵ        |             |          |      |      |
| 1 Sum of 1<br>2 Cost Ce<br>3 AGAA<br>4<br>5<br>6<br>7<br>8<br>9 AGAA T<br>10 AGBA<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19  | Period £<br>Inti Cat Name<br>CATERING<br>COMPUTE<br>FURNITUR<br>HEALTH &<br>MISC/UNC<br>STATIONE<br>Total<br>AUDIO VIS<br>BOOKS<br>BROUGHT<br>CATERING<br>CLEANING<br>COMPUTE<br>ESTATES<br>FURNITUR<br>HEALTH &<br>MISC/UNC   | Trans code  | Descrip<br>MENT<br>SERVI | CES       | al 55.1<br>55.1<br>0<br>367.32<br>13.68<br>298.54<br>0<br>3310.95<br>169.47<br>169.47<br>0<br>3310.95<br>169.47<br>0<br>3310.95<br>169.47<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0         |      | F (          | <u>3</u> |             |          |      |      |
| 1         Sum of I           2         Cost Ce           3         AGAA           4         5           6         7           8         9           9         AGAA T           10         AGBA           11         12           13         14           15         16           17         18           19         20   | Period £ Intr Cat Name CATERING COMPUTE FURNITUR HEALTH & MISC/UNC STATIONE Total AUDIO VIS BOOKS BROUGHT CATERING CLEANING COMPUTE ESTATES FURNITUR HEALTH & MISC/UNC POSTAL &  | Trans code  | Descrip<br>MENT<br>SERVI | CES       | al<br>55.1<br>0<br>367.32<br>13.68<br>-298.54<br>0<br>0<br>310.95<br>169.47<br>0<br>169.47<br>0<br>6683.52<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0          |      | F (          | 3        |             |          |      |      |
| 1         Sum of I           2         Cost Ce           3         AGAA           4         5           6         7           8         9           9         AGAA T           10         AGBA           11         12           13         14           15         16           17         18           19         20           21         21   | Period £ Introduction for the second  | Trans code  | Descrip<br>MENT<br>SERVI | CES5      | al<br>55.1<br>0<br>367.32<br>13.68<br>-298.54<br>0<br>0<br>3310.95<br>169.47<br>0<br>6683.52<br>0<br>6683.52<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0        |      | F (          | 3        |             |          |      |      |
| 1         Sum of I           2         Cost Ce           3         AGAA           4         5           6         7           8         9           9         AGAA T           10         AGBA           11         12           13         14           15         16           17         18           19         20   | Period £ Intr Cat Name CATERING COMPUTE FURNITUR HEALTH & MISC/UNC STATIONE Total AUDIO VIS BOOKS BROUGHT CATERING CLEANING COMPUTE ESTATES FURNITUR HEALTH & MISC/UNC POSTAL &  | Trans code  | Descrip<br>MENT<br>SERVI | CES5      | al<br>55.1<br>0<br>367.32<br>13.68<br>-298.54<br>0<br>0<br>310.95<br>169.47<br>0<br>169.47<br>0<br>6683.52<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0<br>0          |      | F (          | 3        |             |          |      |      |
| 1         Sum of I           2         Cost Ce           3         AGAA           4         5           6         7           8         9           9         AGAA T           10         AGBA           11         12           13         14           15         16           17         18           19         20           21         22           23         24                       | Period £ Introduction Introduct | Trans code  | Descrip<br>MENT<br>SERVI | CES5      | al<br>55.1<br>0<br>0<br>367.32<br>13.68<br>-298.54<br>0<br>0<br>3310.95<br>169.47<br>0<br>6683.52<br>0<br>0<br>6683.52<br>0<br>0<br>0<br>0<br>104.9<br>299.66<br>0<br>0<br>104.9                                   |      | F (          | ĵ        |             |          |      |      |
| 1         Sum of           2         Cost Ce           3         AGAA           4         5           6         7           7         8           9         AGAA T           10         AGBA           11         12           13         14           15         16           17         18           19         20           21         22           22         23           24         25 | Period £ Introduction Introduct | Trans code  | Descrip<br>MENT<br>SERVI | CES5      | al 55.1<br>0<br>0<br>367.32<br>13.68<br>298.54<br>0<br>0<br>3310.95<br>169.47<br>0<br>169.47<br>0<br>169.47<br>0<br>0<br>104.9<br>299.66<br>0<br>104.9<br>299.66<br>0<br>1234.1<br>266.2                           |      | F (          | ĵ        |             |          |      |      |
| 1         Sum of I           2         Cost Ce           3         AGAA           4         5           6         7           8         9           9         AGAA T           10         AGBA           11         12           13         14           15         16           17         18           19         20           21         22           23         24                       | Period £ Inti Cat Name CATERING COMPUTE FURNITUR HEALTH & MISC/UNC STATIONE Total CATERING CLEANING CLEANING CLEANING CLEANING ESTATES FURNITUR HEALTH & MISC/UNC POSTAL & PRINTING STATIONE TRAVEL WORKSHO Total STATIONE   | Trans code  | Descrip<br>MENT<br>SERVI | CES5      | al 55.1<br>0<br>0<br>367.32<br>13.68<br>298.54<br>0<br>0<br>310.95<br>169.47<br>0<br>169.47<br>0<br>169.47<br>0<br>104.9<br>299.66<br>0<br>104.9<br>299.66<br>0<br>104.9<br>299.66<br>0<br>1234.1<br>266.2<br>9.75 |      | F (          | ĵ        |             |          |      |      |

## 2.6 Changing the fields displayed on the pivot table

You can amend your pivot table and change the fields that are displayed by either adding new ones or removing existing ones.

The two most common ways to change the fields displayed in the pivot table are...

#### Method 1



Either:

• highlight a field and drag it to the required location on your spreadsheet;

or

• using the **Add To** button, select where you want to add the new field – from the drop down list and then double click on the appropriate field from the list.

| PivotTable   |         |                           | • x     |
|--------------|---------|---------------------------|---------|
| PivotTable ▼ | 2       | Forma <u>t</u> Report     | 📑   💁 🔳 |
| Supplies     |         | Pivot <u>C</u> hart       | 38      |
|              | •••     | PivotTable <u>W</u> izard | 1649    |
|              | 2       | <u>R</u> efresh Data      | 1274    |
| ervices      |         | Offline OLAP              | 12:     |
|              |         | Hi <u>d</u> e             | 34:     |
| 3            |         | Select +                  | 805     |
| tage         |         | Group and Show Detail 🕨   | 90.     |
| jes          |         | For <u>m</u> ulas •       | -40t    |
| icle hire a  |         | Ord <u>e</u> r •          | -40(    |
| Contract Hi  | 0,      | Field Settings            | 26      |
| Supplies (l  |         | Subtotals                 | 93      |
|              |         | Sort and Top 10           | -17:    |
|              | 0       | Property Fields           | 8474    |
|              | and the | Table Options             | 8474    |
|              | ħ       | Show <u>P</u> ages        |         |
| 1            | -       | 11                        |         |

#### Method 2

- On the Pivot tool bar select Pivot table wizard from the drop down menu selection.
- This will take you back to step 3 of the initial wizard and you can amend which fields you would like displayed (and where) by dragging the field buttons across.
- When you have made the changes, click on OK and decide whether you would like your new pivot table report on the same sheet or on a new one. (Step 3 of the wizard).



Alternatively, you modify the layout by simply dragging and dropping an item to another area of the pivot table.

| ß        | 😅 🖬 🎒 🖎 💖 👗 🛍 💼 💅 🗠 - 🍓 Σ 🏂 🛃 🏙 😨                                       | Arial              |
|----------|---|--------------------|
| Piv      | otTable 🗸 🚈 🛄 📴 📲 🚦 🚱 🌉   |                    |
|          | A15 - Miscellaneous/unclassified  |                    |
|          | Α   | В                  |
| 1        | Cost Centre code  | (All) 🔻            |
| 2        |   |                    |
| 3        | Sum of Period Activity  |                    |
|          |   | Total              |
| 5        | Agricultural, Fisheries, forestry, Horiticultural Supplies and Services | 74.88              |
| 6        | Audio Visual and Multimedia   | 1943.55            |
| 7        | Catering supplies and Services  | 8590.66            |
| 8        | Cleaning materials and Equipment, Janitorial Supplies                   | 18617.6            |
| 9        | Computing Supplies  | 41183.78           |
|          | Credit Card control account   | 3522.14            |
|          | Estates and Buildings   | 18859.4            |
|          | Furniture, Furnishings and Textiles                                     | 14369.98           |
|          | Laboratory and Animal House Supplies and Services                       | 25496.81           |
|          | Library and publications  | 156808.27          |
|          | Miscellaneous/unclassified  | -32909.55          |
|          | Printing  | 110008.55          |
|          | Professional and Bought in Services                                     | 5375.03            |
|          | Safety and Security   | 30434.06           |
|          | Stationery and Office Supplies  | 55565.14           |
|          | Telecommunications and Postage  | 61758.81           |
|          | Telecoms - Port related Charges   | 20137.39           |
|          | Transfer of Expenditure   | -647.46<br>34861.7 |
|          | Travel and Transport (inc Vehicle hire and subsistence)                 |                    |
|          | Vehicles (Purchase, Lease, Contract Hire)                               | 14159.02           |
|          | Workshop and Maintenance Supplies (Lab and Estates)<br>#N/A             | 61947.64           |
|          | (blank)   | -9034.65           |
|          | (diank)<br>Grand Total  | 641122.75          |
| 20<br>29 |   | 041122.79          |
| 29<br>30 |   |                    |

To 'Hide' blank fields that contain no data....

. Click on the drop down arrow next to the heading of the blank field e.g. in this example 'Activity Description'

- Stationery and Office Supplies

  Telecommunications and Postage

  Telecoms Port related Charges

  Transfer of Expenditure

  Travel and Transport (inc Vehicle hire and subsistence)

  Vehicles (Purchase, Lease, Contract Hire)

  Vehicles (Purchase, Lease, Contract Hire)

  Vehicles (Lab and Estates)

  V#N/A

  OK Cancel
- Scroll down and untick the 'blank' option
- 3. Click on OK

# **3. Presenting Information**

#### 3.1 General Tips

There are a number of ways that data can be presented - and Excel can help you with this - but in all circumstances information should be:

- **Clear**: Take account of the users' abilities, aggregate and classify if appropriate, provide summaries of key issues and supporting explanatory notes.
- **Comparable**: Consistent, standardised, regular formats, layouts. Notes to assist interpretation particularly where there are changes in treatment with comparable figures e.g. from a prior period

## 3.2 Report Headers and Footers

It sounds obvious but you should always include a title for your report that includes – as a minimum - details of your department, the account segment(s) being analysed and the time period that the data covers.

<u>*Tip:*</u> You may simply type in titles at the top of a sheet, but using the Header and Footer options allows you to automate the display of file names and dates.

From the menu bar select: "View" and then select "Header and Footer"

| Page Setup   | ? ×                         |  |
|--|-----------------------------|--|
| Page       Margins       Header/Footer       Chart         Department of Engineering       Header:         Department of Engineering       Danalysis of Expenditure on AAA | Print Print Preview Options | You can either<br>select a standard<br>header from the<br>list available from<br>the drop down |
| Custom Header Custom Footer  |                             | button.  |
| Eooter:  |                             | Or   |
| Prepared by K5311 24/03/2005, Page 1   |                             | Val. and anote   |
| Prepared by KS311 24/03/2005 Page 1  | Cancel                      | You can create<br>your own header<br>by clicking on the<br>Custom Header<br>button             |
|  |                             |  |

If you are creating your own header you will progress to this screen, where you can type in the title you require.

Once you have created this header it will be added to the drop down list of standard headers (such as Filename, Date etc) and is available for all the other sheets within your workbook.

| Header  |                             |                             | ? ×          |
|---|-----------------------------|-----------------------------|--------------|
| To format text: select the text, the<br>To insert a page number, date, time<br>in the edit box, then choose the | , filename, or tab name: po | osition the insertion point | OK<br>Cancel |
|   |                             |                             |              |
| Left section:<br>Department of Engineering  | Center section:             | Right section:              | ×            |

#### **Report Footers**

Useful for both the report author and customer; these can include references such as:

The name of the person who has compiled the report, Date prepared and version number Excel filename Page numbering

Go to: "*View*" menu and select "*Header/Footer*" and the process is the same as for a header.

#### 3.3 Layouts and formats

You can improve the look and clarity of your report by altering its format, fonts, backgrounds and introducing colours. This can be done either manually or by clicking on the auto format button in the pivot table tool bar.



From here you can select one of the standard report layouts from the menu options.

#### Getting Column titles to repeat at the top of each page

Often you will have a spreadsheet that contains many rows of data which will thus print out over several pages. You can get Excel to repeat the column headings from the first page on each subsequent page that you print.

From the "View" menu go to the "Header/Footer" option Select the 'Sheet' tab:

| Page Setup   | <u>?×</u>                   |
|--|-----------------------------|
| Page   Margins   Header/Footer   Sheet   |                             |
| Print area: Similar Si | Print Print Preview Options |
| Columns to repeat at left:       Image: Column headings         Print       Image: Column headings         Image: Black and white       Comments:       (None)         Image: Draft guality       Cell errors as:       displayed         Page order       Image: Column heading errors as:       Image: Column heading errors as:   |                             |
| © <u>D</u> own, then over     ○ <u>O</u> ver, then down  |                             |
| OK   | Cancel                      |

Enter the reference for the row on your spreadsheet that contains your column titles, e.g. \$1:\$1 is row 1

(alternatively you could just highlight the row on the spreadsheet)

Then just click OK

a b

#### Formatting numbers/currencies

There are a number of ways in which you can format values.

To quickly convert to £0.00 format, highlight the cells and click on the currency button on the tool bar

#### Format Cells Number Alignment Font Border Patterns Protecti To choose a specific currency Sample Category: format, highlight the cells and Period Activity General Number Currency Decimal places: 2 ÷ "Format", "Number" Accounting Symbol: Date Time Ŧ Percentage . <u>N</u>egative numbers: Choose a category e.g. Currency, Fraction Scientific -£1,234.10 and modify it using the options Text Change the Special -£1.234.10 display options Custom Alternatively, choose the last for the category of your choice category called "Custom", and Currency formats are used for general monetary values formats to align decimal points in a column. then pick a display option from the long scroll down list. OK

select

|   |    | AL     | <b></b> = +   | ۳e |
|---|----|--------|---------------|----|
|   |    | Α      | В             |    |
| ••                                      |    | Period | Cumulative    |    |
| Note:                                   |    |        | balance 04/05 |    |
|   | 1  |        | £000          |    |
| Standard practice is not to include the | 2  | AUG    | 119           |    |
| Standard practice is not to include the | 3  | SEP    | 202           |    |
| currency symbol for each value - but to | 4  | OCT    | 396           |    |
| specify it at the top of the column.    | 5  | NOV    | 459           |    |
|   | 6  | DEC    | 554           |    |
|   | 7  | JAN    | 640           | _  |
|   | 8  | FEB    | 704           |    |
|   | 9  | MAR    | 787           |    |
|   | 10 |        | 851           |    |

## Highlighting data

#### Method 1

With your mouse, select the range of cells you wish to highlight.

From the tool bar click on the "Fill" button

| ٩ | • |
|---|---|
|---|---|

| otion ় trans cat desc  | <ul> <li>Total</li> </ul> |
|---|---------------------------|
| Agricultural, Fisheries, forestry, Horiticultural Supplies and Se | rvices 53.39              |
| Audio Visual and Multimedia                                       | 2908.53                   |
| Catering supplies and Services                                    | 12579.96                  |
| Cleaning materials and Equipment, Janitorial Supplies             | 28617.03                  |
| Computing Supplies  | 64848.55                  |
| Credit Card control account                                       | 5585.87                   |
| Estates and Buildings   | 32447.99                  |
| Furniture, Furnishings and Textiles                               | 18086.71                  |
| Laboratory and Animal House Supplies and Services                 | 38950.36                  |
| Library and publications  | 164932.37                 |
| Miscellaneous/unclassified  | -47862.99                 |
| Printing  | 127495.97                 |
| Drafaccional and Pought in Convicas                               | 10007.07                  |

Method 2: Use "Conditional Formatting"

Let Excel highlight values that meet criteria you specify. Firstly, select the data area you want the conditional formatting to operate on then:

#### Select "Format", "Conditional Formatting"

select the criteria you would like to use from the drop down lists:

| Conditional Formatting                           |               | ×              |
|--|---------------|----------------|
| Condition <u>1</u><br>Cell Value Is Vetween      |               | and 🔣          |
| Preview of format to use when condition is true: | No Format Set | <u>E</u> ormat |
|  | Add >> Delete | OK Cancel      |

For example, if you want it to highlight any values greater than £1,000 you would complete the boxes as follows:

| Conditional Formatting                             |                               | ×         |
|--|-------------------------------|-----------|
| Condition <u>1</u><br>Cell Value Is 💌 greater than | 1000                          | <u> </u>  |
| Preview of format to use when condition is true:   | No Format Set                 | Eormat    |
|  | <u>A</u> dd >> <u>D</u> elete | OK Carcel |
|  |                               |           |

Now specify how you want the results highlighted by clicking on the format Button.

#### Adding a "Comment" to a cell

Adding comments to spreadsheet cells allow notes to be added without typing directly into a cell. The comment is typed into a pop-up box. You can then choose how to display options the comments. For example, they can be permanently displayed or just be indicated by a small red triangle.

| 2915 Private Purchases     | - | 5 | 9.00   |  |
|----------------------------|---|---|--------|--|
| 2916 Private Purchases     | ( |   | 0.00   |  |
| 2917 Private Purchases     |   |   | 35.00  |  |
| 2918 Denartmental Reserves |   |   | -40.30 |  |

Place your curser over this red triangle the comment is displayed.

| 2916 | Private Purchases     | K5311:                   |
|------|-----------------------|--------------------------|
| 2917 | Private Purchases     | Desk lamp for Dr A Brown |
| 2918 | Departmental Reserves |                          |
| 2919 | Departmental Reserves |                          |
|      | Departmental Reserves | -100.00                  |
| 2024 |                       | 405.00                   |

#### How to add a comment

Click in the cell where you would like to add a comment and either right click on the mouse or go to the Insert menu and select '**Insert Comment**'

Do the same to edit/delete an existing comment.

To list the comments at the end of the worksheet (when printed out), go to:

File> Page Set Up and select the 'Sheet' tab

For Comments, select 'at end of sheet'



# 4. Charts and Graphs

Sometimes a chart may be a better way of displaying information giving more clarity with a visual presentation of data.

## 4.1 Basic process

a) Highlight your data (including column/row labels)

| <b>N</b> | licrosoft                 | Excel - NA YEARLY                         | COMPARISON                     | OF AAAA.xls                   |              |
|----------|---------------------------|---|--------------------------------|-------------------------------|--------------|
|          | <u>E</u> ile <u>E</u> dit | <u>V</u> iew <u>I</u> nsert F <u>o</u> ri | mat <u>T</u> ools <u>D</u> ata | a <u>W</u> indow <u>H</u> elp |              |
| ] 🗅      | 🖻 📕                       | 🖨 🖪 🚏 🐰                                   | 🖻 🛍 ダ                          | ν 🖌 🍓 Σ                       | _f≈_ ੈ‡↓ 🚺 🖸 |
|          | A1                        | ▼ =                                       | Period                         |                               |              |
|          | Α                         | В   | С                              | D                             | E            |
| 1        | Period                    | FYE 04/05                                 | FYE 03/04                      |                               |              |
| 2        | AUG                       | 119,853.66                                | 153,648.29                     |                               |              |
| 3        | SEP                       | 82,798.05                                 | 89,580.26                      |                               |              |
| 4        | OCT                       | 194,198.53                                | 80,544.12                      |                               |              |
| 5        | NOV                       | 62,827.95                                 | 277,520.33                     |                               |              |
| 6        | DEC                       | 94,619.85                                 | 78,779.06                      |                               |              |
| 7        | JAN                       | 86,084.51                                 | 61,532.08                      |                               |              |
| 8        | FEB                       | 64,285.34                                 | 135,160.56                     |                               |              |
| 9        | MAR                       | 82,820.02                                 | 99,672.25                      |                               |              |
| 10       | APR                       | 63,607.28                                 | 56,172.83                      |                               |              |
| 11       | MAY                       | 76,138.63                                 | 111,619.80                     |                               |              |
|          | JUN                       | 0   | 71,744.12                      |                               |              |
| 13       | JUL                       | 0   | -188,733.59                    |                               |              |
| 14       |                           |   |                                |                               |              |
| 15       |                           |   |                                |                               |              |

- b) From the menu bar, select Insert → Chart or click on the Chart button on your tool bar
- c) Using the Chart wizard steps, select the type of chart you want and select the data source
- d) Titles and Axis labels you should always ensure that your chart has a title and its axes are labelled.

| Chart Wizard - Step 3 of 4 - Chart (<br>Titles Axes Gridlines Lee   | Dptions ? X<br>gend   Data Labels   Data Table       | ι.                             |
|---|--|--------------------------------|
| Chart title:<br>Comparison of Expenditure or<br>Category (X) axis:<br>Period<br>Value (Y) axis:<br>f<br>Second category (X) axis:<br>Second value (Y) axis: | Comparison of Expenditure on AAAA<br>Source of Funds | " <b>Finish</b> " the<br>chart |
|   | Period   |                                |
| Ca  | ncel < Back Next > Finish                            |                                |

## 4.2 Improve the layout and look of a chart

With the chart displayed, double click on one of the axes labels (e.g. a period name), the formatting box will appear.

Select the 'Patterns' tab

| Format Axis  | X   |                |  |
|--|---|----------------|--|
| Patterns Scale Font r<br>Lines<br>Automatic<br>None<br>Custom<br>Style:<br>Color: Automatic<br>Weight:<br>Sample | Mumber       Alignment         Major tick mark type       None         Inside       Cross         Minor tick mark type       None         None       Outside         Inside       Cross         Inside       Cross         Inside       Cross         Ick mark labels       None         Ick mark labels       None         Ick mark labels       None         Icw       Maxt to axic |                | Make sure the<br>major tick mark<br>type is 'outside'<br>and<br>the tick mark<br>label is 'low'<br>Now click on OK |
| -  | -   |                |  |
| 400,000.00   |   |                |  |
| 300,000.00   | Π   | -              |  |
| 200,000.00   | -   | _              |  |
|  | ᡶᡆᠴ᠋ᡶ᠖᠊᠆᠖ᡔ  | ■ Year 03/04   |  |
|  |   | ∎ Year 04/05 • | The axis labels have   |
| -100,000.00  |   |                | now moved to the bottom of the chart.  |
| -200,000.00  |   |                |  |
| -300,000.00  |   |                |  |
| Aug Sep Oct  | Nov Dec Jan Feb Mar Apr May Jun   | Jul Chart Area |  |

#### Data labels

Like chart titles, these are a chart option and can either be set up in the wizard steps or afterwards by selecting chart options (right clicking on your mouse).

When adding labels, be careful that they don't clutter up your chart and make it difficult to read (especially on bar charts) – consider reformatting the labels so that they use a different font, colour or size.

**Tip:** Labels work particularly well with pie charts – see example overleaf.

| Chart Wizard - Step 3 of 4 - Chart   | Options ?   | ×  |
|--|---|--|
| Titles Legend Data Labels  |   |  |
| Label Contains<br>Series name<br>Category name<br>Value<br>Percentage<br>Bubble size<br>Separator: | Engineering Chest Budget 04/05  |  |
| ☐ Legend key ✓ Show leader lines   | <ul> <li>Wages -Technical, Lab &amp; workshop</li> <li>Wages- Administration &amp; Library</li> <li>Wages- maintenance &amp; Cleaning</li> <li>Other Charges</li> </ul> | these little<br>coloured boxes<br>are the 'legend<br>keys' |
| Ca   | ncel < <u>B</u> ack <u>N</u> ext > <u>F</u> inish   |  |

#### Change the format of any existing titles, labels etc on your graph

Either highlight the item e.g. a data label and double click or pick the item you require from the chart objects tool bar button and then click on format.



A format window will then appear similar to below.

| Format Data Labels   |  |                               | <u>? ×</u> |
|--|--|-------------------------------|------------|
| Patterns Font Number   | Alignment                                |                               |            |
| Eont:  | Font style:                              | <u>Size:</u>                  |            |
| Arial  | Italic                                   | 8                             |            |
| Albertus Extra Bold (W1<br>Albertus Medium (W1)<br>Antique Olive (W1)  | Regular<br>Italic<br>Bold<br>Bold Italic | 8<br>9<br>10<br>11            |            |
| <u>U</u> nderline:   | <u>⊂</u> olor:                           | B <u>a</u> ckground:          | []         |
| None   |  | <ul> <li>Automatic</li> </ul> | -          |
| Effects<br>Strikethrough<br>Sup <u>er</u> script<br>Su <u>b</u> script | Preview Aa                               | aBbCcYyZz                     |            |
| Auto scale<br>This is a TrueType font. The sam<br>your screen.         | ne font will be used (                   | on both your printer a        | nd         |
|  |  | OK Car                        | icel       |

## 4.3 Sizing and moving charts around

It is easy to resize and move charts around charts that have been inserted into existing pages of a workbook or another file.

#### <u>To resize</u>

Highlight your chart and place your curser over one of the black squares on the boundary until your curser becomes a small double headed arrow. Now just drag either in or out until you reach the required size



#### To move a chart:

Click anywhere in the chart area, hold down the left mouse key down and drag the chart to the required spot.

#### Copying into a word document:

Highlight the chart and then copy and paste into the required document

## 4.4 Creating Charts from Pivot tables

You can also chart the data in your pivot table. Simply highlight the data in your pivot table that you would like to chart and click on the charting button in the Pivot tool bar.



Select the required style of chart and amend the format, colour, labelling, size etc. until you are happy. It is recommended that you save your chart as a different worksheet initially and don't forget to give it a header and footer in the normal way.

Your chart will automatically update itself to reflect your pivot table view.

# 5 Security of spreadsheets

If you export data from CUFS you must ensure that it continues to be kept in a secure manner.

In Excel you can set passwords to restrict both viewing and updating of spreadsheets that may contain sensitive departmental or personal information.

Hardcopy reports and spreadsheets containing such information should never be left out or kept unsecured.

#### 5.1 Passwords to restrict opening a spreadsheet

- i) Open up the spreadsheet in question
- ii) From the file menu select Save As
- iii) Click on the Tools and select General Options from the menu



d) In the pop-up window that appears, type in the password you wish to use.

(This does not have to be a minimum length but it is case sensitive)

| Save Options                                  |       | ×                 |
|---|-------|-------------------|
| Always create <u>b</u> ackup     File sharing |       |                   |
| Password to open:                             | ***** | Ad <u>v</u> anced |
| Password to modify:                           |       |                   |
| Read-only recommended                         |       |                   |
|   | ОК    | Cancel            |

e) You will return to your main "Save As" window – now just click on the Save button

| Save As                |   | ? X |
|------------------------|---|-----|
| Save in:               | 🛅 Part 3 💽 🕑 - 🔰 🔍 🔀 📷 - Tools -  |     |
| My Recent<br>Documents | <ul> <li>Charting examples</li> <li>Consolidation Exercise</li> <li>examples</li> <li>Manual</li> <li>3 Transaction Code Balances NA ytd jan05 reconciliation</li> <li>4 Transaction Code Balances NA with looked up values</li> <li>5 Transaction Code Balances NA with pivot</li> </ul> |     |
| My Documents           |   |     |
| My Computer            |   |     |
| My Network             | File name:     4 Transaction Code Balances NA with looked up values       Save as type:     Microsoft Office Excel Workbook   |     |

Say "**Yes**" to the message that pops up and replace your existing file. Your password is now set.

Next time you open the file you will be asked for the password

**WARNING:** Passwords are case sensitive and they are stronger if you include numbers, symbols and mixed case. HOWEVER, if you forget your password, you may have to resort to code breaking software to get it back (at a price)

TIP: If the data is not sensitive, then just protect your work from being altered (see overleaf.

#### 5.2 Adding passwords to prevent changes

- a) Repeat the process detailed above but add a password into the second field
- b) When you open the spreadsheet you will have to go through two password screens, the second being:

| Password   | <u>? ×</u>        |
|--|-------------------|
| '1 Transaction Code' is reserved by KS311              | ОК                |
| Enter password for write<br>access, or open read only. | Cancel            |
| Password: *****  | <u>R</u> ead Only |

- c) To update the spreadsheet enter the second password and click OK
- d) To just view the spreadsheet click on 'Read Only'

#### 5.3 Removing password protection

- a) Open up the spreadsheet in the normal way
- b) Select **Save as** from the File menu
- c) Select General Options from the Tool button
- d) Delete any existing passwords entered
- e) Click on **OK**
- f) Click on **Save**

| Save Options                                  |    | ×                 |
|---|----|-------------------|
| Always create <u>b</u> ackup     File sharing |    |                   |
| Password to open:                             |    | Ad <u>v</u> anced |
| Password to modify:                           |    |                   |
| Read-only recommended                         |    |                   |
|   | ОК | Cancel            |